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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/591,897      | 09/07/2006  | Tobias Lang          | 3804                | 6440             |

278 7590 02/17/2010  
MICHAEL J. STRIKER  
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| EXAMINER |
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WEST, JEFFREY R

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2857

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| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

02/17/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

striker@strikerlaw.com

|  |                                      |                                     |  |
|--|--------------------------------------|-------------------------------------|--|
| <p align="center"><b>Advisory Action</b><br/><b>Before the Filing of an Appeal Brief</b></p> | <b>Application No.</b><br>10/591,897 | <b>Applicant(s)</b><br>LANG, TOBIAS |  |
|  | <b>Examiner</b><br>Jeffrey R. West   | <b>Art Unit</b><br>2857             |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 27 January 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1 and 4-7.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Jeffrey R. West/  
Primary Examiner, Art Unit 2857

In response to Applicant's arguments regarding the rejection of claims 1 and 4-7 under 35 USC §112, second paragraph, the Examiner maintains that the second paragraph of 35 U.S.C. 112 requires one or more claims "particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention". As such, the equation in claims 1 and 7 which includes undefined variables "K" and "A" does not distinctly claim the subject matter which the applicant regards as his invention because it is unclear to one having ordinary skill in the art as to what the equation defines and how the equation is used in accordance with the remainder of the claim.

In response to Applicant's argument that "Eshita's operation of detecting the zero crossings is not equivalent to determining a time  $t_1$  of the maximum amplitude as a reference point, as claimed", the Examiner asserts that claim 1 requires "the receiver unit (4) determines a time ( $t_l$ ) of a characteristic value of the ultrasonic signal" and Eshita explicitly discloses, in paragraph 0026, "since the zero crossing time ( $Z$ ) of the wave ( $W_m$ ) with the maximum amplitude is adopted as the ultrasonic wave arrival timing" thereby meeting the limitation of determining a time (i.e. zero crossing time) of a characteristic value (i.e. maximum amplitude).

In response to Applicant's argument that "this 'subtracting 'predetermined' time received wave ( $W$ ) reaching timing also considering the time of the event of the supersonic wave being first received" disclosed by Eshita at paragraph [0032] cannot be said to be equivalent to the receiver determining a time shift ( $\Delta t$ ) of the time ( $t_l$ ) relative to the reception time ( $t_0$ ), as claimed", the Examiner asserts that Eshita discloses, in paragraph 0030, that "the zero crossing time ( $Z$ ) of the wave ( $W_m$ ) with the maximum amplitude of the received wave has been adopted as the ultrasonic wave arrival timing" and discloses, in paragraph 0032, that "the time when the ultrasonic waves are received for the first time by subtracting a prescribed time from the received wave ( $W$ ) arrival timing". Therefore, the Examiner asserts that Eshita discloses determining a time shift of the time  $t_1$  (i.e. time of the waves received or the first time –  $W_m$ ) relative to the reception time  $t_0$  (i.e. reception time  $W$ ) and using the time shift to determine a correct time value for the reception time (i.e. determine a correct reception time of  $W$  arrival timing).

In response to Applicant's argument that neither "Eshita nor Ai suggest improving the measurement precision of an ultrasonic flow sensor in the event of sharply fluctuating signal amplitude", the Examiner maintains that Eshita does disclose the time correction as discussed above and the invention of Ai is only included to explicitly indicate that the receiver unit determines a chronological position of a focal point of either the ultrasonic signal or its envelope curve as the characteristic value. With respect to the signals involved, the Examiner also draws Applicant's attention to Figure 3 of the instant specification, Figure 2 of Eshita, and Figure 2 of Ai.

In response to Applicant's argument that "incorporating the teachings of Ai could not be readily carried out without substantially modifying the operation of Eshita in view of the fact that Eshita's unit does not determine a chronological position of a focal point of either the ultrasonic signal or its envelope curve as the characteristic curve, the time of the characteristic value and time shift (as stated above)", the Examiner maintains that Eshita does disclose the time shift as discussed above. Also, the Examiner asserts that it would have been obvious to modify the invention of Eshita to explicitly indicate that the receiver unit determines a chronological position of a focal point of either the ultrasonic signal or its envelope curve as the characteristic value, as taught by Ai, because Eshita explicitly discloses determining a time of a value characteristic of the ultrasonic signal as a maximum amplitude of the ultrasonic signal (see, Eshita, Figure 2) and Ai suggests a corresponding means for determining such a maximum location using an accurate and simple calculation that is effective when dealing with a plurality of peaks that are difficult to distinguish (column 3, line 55 to column 4, line 38 and column 7, lines 10-24). Again, Applicant is directed to Figure 3 of the instant specification, Figure 2 of Eshita, and Figure 2 of Ai.

/JRW/